AMENDMENTS TO THE CLAIMS:

1-4. (Canceled).

5. (Currently Amended) A method of inducing a ~~protective or therapeutic~~ prophylactically effective immune response against Helicobacter in a mammal, said method ~~comprising~~ consisting essentially of administering to said mammal ~~an effective amount of~~ a prophylactically ~~or therapeutically~~ effective amount of a prophylactically effective *Helicobacter pylori* polypeptide antigen by the subdiaphragmatic, systemic route.

6. (Previously Presented) The method of Claim 5, in which a Th1-type immune response is induced by said subdiaphragmatic, systemic administration.

7. (Currently Amended) The method of Claim 6, wherein a Th1-type immune response and a Th2-type ~~in which the Th1-type~~ immune response are induced and the immune response of said mammal is characterized by either (i) ~~by~~ a ratio of the ELISA IgG2a:IgG1 titers greater than or equal to 1:100, or (ii) ~~by~~ a ratio of the ELISA IgG2a:IgA titers greater than or equal to 1:100.

8. (Currently Amended) The method of Claim 7, in which the ~~Th1-type~~ immune response of said mammal is characterized either (i) by a ratio of the ELISA IgG2a:IgG1 titers greater than or equal to 1:10, or (ii) by a ratio of the ELISA IgG2a:IgA titers greater than or equal to 1:10.

9. (Currently Amended) The method of Claim 8, in which the ~~Th1-type~~ immune response of said mammal is characterized either (i) by a ratio of the ELISA IgG2a:IgG1 titers greater than or equal to 1:2, or (ii) by a ratio of the ELISA IgG2a:IgA titers greater than or equal to 1:2.

10. (Canceled).

11. (Previously Presented) The method of Claim 10, in which the *Helicobacter pylori* antigen comprises the UreB or UreA subunit of a *Helicobacter pylori* urease.

12 and 13. (Canceled).

14. (Previously Presented) The method of Claim 5, in which the *Helicobacter pylori* antigen is administered by the strict systemic route.

15. (Previously Presented) The method of Claim 5, in which the *Helicobacter pylori* antigen is administered by a systemic route selected from the subcutaneous route, the intramuscular route, and the intradermal route.

16 and 17. (Canceled).

18. (Previously Presented) The method of Claim 5, in which the *Helicobacter pylori* antigen is administered in the dorsolumbar region of said mammal.

19-24. (Canceled).

25. (Currently Amended) A method of [preventing or treating] inducing a prophylactically effective immune response against Helicobacter infection in a mammal, said method comprising in order the steps of:

mucosally administering [an effective amount of] a prophylactically [or therapeutically] effective amount of a prophylactically effective *Helicobacter pylori* antigen to said mammal; and then

parenterally administering a prophylactically effective amount of a prophylactically effective *Helicobacter pylori* antigen to said mammal.

26-36. (Canceled).

37. (Currently Amended) The method of claim 25, further comprising carrying out ~~in which~~ more than one mucosal administration ~~is carried out~~.

38. (Currently Amended) The method of claim 25, further comprising carrying out ~~in which~~ more than one parenteral administration ~~is carried out~~.

39. (Previously Presented) The method of Claim 25, in which the mucosal administration is carried out to prime an immune response to said *Helicobacter pylori* antigen, and the

parenteral administration is carried out to boost an immune response to said *Helicobacter pylori* antigen.

40. (Previously Presented) The method of Claim 25, in which the mucosal administration is oral administration.

41. (Canceled).

42. (Previously Presented) The method of Claim 25, in which the *Helicobacter pylori* antigen is selected from a preparation of inactivated *Helicobacter pylori* bacteria, a *Helicobacter pylori* cell lysate, a peptide or a polypeptide from *Helicobacter pylori* in purified form, a DNA molecule comprising a sequence encoding a peptide or a polypeptide from *Helicobacter pylori* placed under the control of the elements necessary for its expression, and a vaccinal vector comprising a sequence encoding a peptide or a polypeptide from *Helicobacter pylori* placed under the control of the elements necessary for its expression.

43. (Previously Presented) The method of Claim 31, in which the *Helicobacter pylori* antigen comprises the UreB or UreA subunit of a *Helicobacter pylori* urease.

44. (Previously Presented) The method of Claim 31, in which the *Helicobacter pylori* antigen is a DNA molecule or a vaccinal vector comprising a sequence encoding the UreB or UreA subunit of a *Helicobacter pylori* urease.

45. (Currently Amended) The method of Claim 25, further comprising mucosally co-administering ~~in which~~ a mucosal adjuvant selected from the group consisting of *Escherichia coli* heat labile enterotoxin (LT), cholera toxin (CT), *Clostridium difficile* toxin, *Pertussis* toxin (PT), and combinations, subunits, toxoids, and mutants derived therefrom~~, is co-administered~~ with the mucosally administered *Helicobacter pylori* antigen.

46. (Currently Amended) The method of Claim 25, in which a parenteral adjuvant selected from the group consisting of alum, QS-21 (purified fraction of saponin extracted from *Quillarja Saponaria Molina*), ~~DC-chol~~ DC-CHOL (3-beta-(N-(N',N'-dimethylamino-ethane)carbamoyl)cholesterol), and ~~Bay~~ BAY R1005 (N-(2-deoxy-2-L-leucylamino-beta-D-glucopyranosyl)-N-octa-decyldodecanoylamide acetate) is co-administered with the parenterally administered *Helicobacter pylori* antigen.

47. (New) The method of Claim 25, in which the parenteral administration is intramuscular administration or subcutaneous administration.